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5 April 67

MEMORANDUM FOR THE RECORD

25X1A2g SUBJECT : [REDACTED] Life Support Equipment Meeting

25X1A2g 1. A meeting was held at [REDACTED] on 29 March 1967 to discuss
25X1A2g [REDACTED] Life Support equipment with the following partici-
pants.

[REDACTED]

25X1D0b 2. The meeting served a threefold purpose. First, a review
25X1A6c and status report on the development of the [REDACTED] the
25X1A6c ejection seat, parachute, seat kit, and support equipment was
25X1A2g presented. Secondly, this review served to bring the [REDACTED]
25X1A2g representative up-to-date on [REDACTED] position with respect to
25X1A9a the [REDACTED] life support systems. Finally, experiences
25X1A9a with similar equipment at [REDACTED] were discussed with [REDACTED]
and [REDACTED] so that problem areas needing resolution during
development could be identified. The requirements for develop-
mental and qualification testing were discussed and plans for
final configuration meetings were tentatively established. The
following paragraphs describe the items discussed.

25X1D0b a. [REDACTED] The major
25X1D0b design emphasis on the modifications of the [REDACTED]
25X1D0b [REDACTED] configuration has been to
25X1D0b increase pilot comfort and reduce fatigue. By starting with
25X1D0b the [REDACTED] the requirement for elaborate windblast,
ejection, or parachute drop tests have been eliminated since
the [REDACTED] is qualified for much greater stresses than
those which would be encountered in the U-2R's flight
envelope. The majority of modifications to be included in
the [REDACTED] have also been qualified in other pressure
suit programs such as NASA's Gemini program, etc. Other
than routine factory qualification testing, there remains
to be answered only the question of how effective the pro-
posed PPA will be in providing maximum comfort and fatigue

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prevention. This question can only be answered by actual experience. [REDACTED] elaborated on several minor problems encountered on the [REDACTED] which require attention during the development of the [REDACTED] and which have already been discussed with [REDACTED]

25X1A2g

25X1A2g

25X1D0b

b. Seat Kit: The seat kit/emergency oxygen supply which [REDACTED] is obtaining specifications and costs on from [REDACTED] will be basically the same as the [REDACTED] seat kit. The only modifications included will be minor changes involving improved maintenance and servicing provisions. No developmental testing or escape system tests will be required since the seat kit has been fully qualified in these respects.

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25X1D0b

c. Parachute: No changes are required from the [REDACTED] configured parachute, which is fully qualified as a part of the [REDACTED] zero-zero to maximum speed/altitude escape system.

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25X1D0b

d. AGE: No changes in ground support and test equipment for the [REDACTED] from that used on the [REDACTED] are anticipated.

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25X1D0b

e. Ejection Seat/System: Although the basic escape system [REDACTED] proposes to use in the U-2R is the same as the [REDACTED] system, there are significant changes, modifications and additions required. One of the major problem areas to be resolved is the adequate and reliable functioning of the control column thruster. The control column must be cleared by the pilot's legs whether the primary or alternate ejection handle is used and whether or not through-the-canopy ejection occurs. Providing safe through-the-canopy ejection capability is a requirement to be met and will involve qualification tests also. Finally, a problem may exist with reference to proper fore-and-aft positioning of the ejection seat to meet the requirements for optimum positioning of the [REDACTED]

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Since no [REDACTED] drivers have been in the mockup cockpit this question remains unanswered. If it is anticipated that such pilots will fly this aircraft it would be most advantageous to fit the [REDACTED] with a full pressure suit and evaluate his positioning and ability to perform in the U-2R cockpit.

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3. It is anticipated that a follow-up meeting between [REDACTED] and [REDACTED] Life Support representatives will be scheduled for late April to finalize a list of qualification and test requirements as well as the final desired configuration of equipment to present to [REDACTED]. A meeting with [REDACTED] would be scheduled to follow for discussion of these combined requirements. [REDACTED] and [REDACTED] attendance at the latter meeting will be requested if this is determined to be required.

Capt. USAF BSC
ASD/R&D/OSA

ASD/OSA/[REDACTED] :pca (5 Apr 67)

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